

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

PERFORMANCE LEVEL DESCRIPTORS ESSENTIALS (GRADE 8) MATHEMATICS

APPROACHES THE STANDARD

General AIMS Performance Level Descriptors (K-12)

This level denotes partial understanding of the knowledge and application of the skills that are fundamental for proficient work. Students who approach the standard demonstrate competency in the prerequisites necessary to begin working on the challenging content required of the student who meets the standards, but do not demonstrate full understanding of that challenging content.

General Essentials (Grade 8) Mathematics Performance Level Descriptors

Eighth grade students performing at the “Approaches the Standard” level demonstrate some understanding of the concepts and procedures in the six Arizona Academic Standards for Mathematics. They are beginning to use correct mathematical language, but need to focus on developing this skill. In addition, they are developing an understanding of the underlying basics of higher mathematics, especially the simplifying of number sentences using the order of operations. They have begun to solve simple equations and have a basic understanding of geometric concepts. They can read or analyze graphs and understand the statistical idea of “mean.” Finally, they have begun to use measurement ideas and concepts appropriately and can use simple logic ideas. Although these students are demonstrating progress in the six Mathematics Standards, they will need additional assistance to meet future success in mathematics in Arizona schools.

Specific Essentials (Grade 8) Mathematics Performance Level Descriptors

Students at the “Approaches the Standard” level know and can do the following:

Number Sense

- Choose the correct unit of measure to estimate or approximate solving problems.
- Simplify numerical expressions using the order of mathematical operations (e.g. +, −, ×, ÷).

Data Analysis and Probability

- Find the mean of a list of data.
- Read and analyze simple graphs to make reasonable predictions.

Patterns, Algebra and Functions

- Solve two-step linear equations with whole numbers.

Geometry

- Apply basic understanding of reflection and translation of geometric figures

Measurement and Discrete Mathematics

- Recognize and select appropriate tools and units of measurement

Mathematical Structure/Logic

- Use if ...then statements to construct simple valid arguments.

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

PERFORMANCE LEVEL DESCRIPTORS ESSENTIALS (GRADE 8) MATHEMATICS

MEETS THE STANDARD

General AIMS Performance Level Descriptors (K-12)

This level denotes demonstration of solid academic performance on challenging subject matter reflected by the content standards. This includes subject-matter knowledge, application of such knowledge to real world situations, and content-relevant analytical skills. Students who perform at this level are well prepared to begin work on even more challenging material that is required for the next performance level. Attainment of at least this level is the goal for all students at the Essentials (Grade 8) level.

General Essentials (Grade 8) Mathematics Performance Level Descriptors

Eighth grade students performing at the “Meets the Standard” level demonstrate an adequate understanding in all six Arizona Academic Standards for Mathematics. These students are developing a working level of correct mathematical language but need to continue developing this skill. They are beginning to solve real-world problems; read, analyze, and represent data in a variety of formats; and use beginning statistical reasoning. They are becoming skilled in basic algebraic and geometric processes and reasoning as well as the corresponding measurement skills. They are also becoming skilled in defining and justifying a methodology for solving problems. These students have a strong basis for continued success in mathematics in Arizona schools.

Specific Essentials (Grade 8) Mathematics Performance Level Descriptors

Students at the “Meets the Standard” level know and are able to do preceding and the following:

Number Sense

- Solve real world problems using multi-digit multiplication or division, including decimals
- Compare and order integers, whole numbers and rational numbers

Data Analysis and Probability

- Find the mean, median, mode and range of a set of data.
- Read and analyze graphs to make valid predictions based on the data given

Patterns, Algebra, and Probability

- Combine like terms, including terms with a coefficient of 1.
- Use substitution and evaluation in algebraic expressions to generate a number pattern.
- Solve multi-step linear equations involving integers.
- Develop an algebraic expression that explains the relationship between the input and output in a table of data.
- Evaluate an algebraic expression with two variables using substitution of integers.
- Compare quantities using ratios.
- Develop and solve proportions.
- Distinguish between linear and non-linear graphs on a coordinate system.
- Solve simple problems involving the extension of a non-numeric pattern.

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) MATHEMATICS**

MEETS THE STANDARD

Geometry

- Identify complementary, supplementary, and corresponding angles
- Set up area problems of complex geometric figures using given formulas
- Perform reflections and translations

Measurement and Discrete Mathematics

- Beginning to develop formulas and procedures to solve problems involving measurement
- Describe the effect on perimeter, area, and volume when one dimension of an object is altered
- Use given formulas to estimate or solve problems involving measurement

Mathematical Structure/Logic

- Identify and set up proportions describing real world problems.

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

PERFORMANCE LEVEL DESCRIPTORS ESSENTIALS (GRADE 8) MATHEMATICS

EXCEEDS THE STANDARD

General AIMS Performance Level Descriptors (K-12)

This level denotes demonstration of superior academic performance evidenced by achievement substantially beyond the goal for all students.

General Essentials (Grade 8) Mathematics Performance Level Descriptors

Eighth grade students performing at the "Exceeds the Standard" level demonstrate a wealth of knowledge, skills, and abilities as described in the six Arizona Academic Standards for Mathematics. The student at the "Exceeds the Standard" level is solving problems conceptually similar to those of "Meets the Standard," but of increased complexity. In addition, they are becoming fluent in the use of correct mathematical language to communicate mathematical relationships and reasoning processes; recognize relationships presented in algebraic, tabular, and graphical forms; use algebraic and geometric reasoning strategies to solve problems, apply statistical reasoning in the organization and display of data and in reading tables and graphs, and demonstrate knowledge of geometric relationships and corresponding measurement skills, including real-world problems and round in context to account for the remainder.

Specific Essentials (Grade 8) Mathematics Performance Level Descriptors

Students at the "Exceeds the Standard" level know and are able to do the preceding and the following:

Number Sense

- Solve real world problems using multi-digit multiplication or division, including decimals. Round in context to account for remainder.

Data Analysis and Probability

- List *all* possible outcomes of an event.
- Choose an appropriate graph to organize and represent given data.
- Determine probability as a fraction, zero, or one.

Patterns, Algebra, and Functions

- Solve problems conceptually similar to those of "Meets the Standard," but of increased complexity.

Geometry

- Apply a basic understanding of rotations
- Solve problems involving geometric figures for area and perimeter of polygons and circumference of circles, given the formulas
- Distinguish congruent geometric figures which are complex or in different spatial orientations

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) MATHEMATICS**

EXCEEDS THE STANDARD

Measurement and Discrete Mathematics

- Solve problems involving measurement using given formulas with precision
- Measure to the appropriate degree of accuracy required in particular problem solving situations.
- Develop formulas and procedures to solve problems involving measurement

Mathematical Structure/Logic

- Design, describe and justify methods for solving problems with a series of defined steps.

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) READING - ENGLISH**

APPROACHES THE STANDARD

General AIMS Performance Level Descriptors (K-12)

This level denotes partial understanding of the knowledge and application of the skills that are fundamental for proficient work. Students who approach the standard demonstrate competency in the prerequisites necessary to begin working on the challenging content required of the student who meets the standards, but do not demonstrate full understanding of that challenging content.

General Essentials (Grade 8) Reading Performance Level Descriptors

Students who are "Approaching the Standard" demonstrate a basic understanding of fiction, nonfiction, and poetry. They are able to use basic reading strategies to identify the main idea, to find supporting details, and to interpret meaning through context clues. Students are able to identify author's purpose and to recognize some organizational patterns, including cause and effect and sequencing. Students are able to identify and locate details from informational sources.

Specific Essentials (Grade 8) Reading Performance Level Descriptors

Students at the "Approaches the Standard" level know and are able to do the following:

Use structural analysis skills to decode unfamiliar words

- Use context clues to determine figurative language.

Apply comprehension strategies

- Predict outcome based on events
- Identify main idea
- Compare and contrast text ideas

Analyze literary elements

- Interpret information from fiction, nonfiction, and poetry.
- Identify author's point of view

Evaluate an instructional manual

- Identify components of informational source.
- Locate information from print and illustration.

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) READING - ENGLISH**

MEETS THE STANDARD

General AIMS Performance Level Descriptors (K-12)

This level denotes demonstration of solid academic performance on challenging subject matter reflected by the content standards. This includes subject-matter knowledge, application of such knowledge to real world situations, and content-relevant analytical skills. Students who perform at this level are well prepared to begin work on even more challenging material that is required for the next performance level. Attainment of at least this level is the goal for all students at the Essentials (Grade 8) level

General Essentials (Grade 8) Reading Performance Level Descriptors

Students who "Meet the Standard " are able to comprehend and respond to text both literally and inferentially. Students demonstrate an understanding of the use of figurative, idiomatic, and technical language. Students distinguish fact from opinion and draw conclusions from stated details. Students describe events and or character motivations, apply prior knowledge in interpreting concepts, and draw conclusions based on stated information according to style and meaning. Students identify author bias, use details to support/explain author's purpose or bias, and recognize persuasive strategies. Students identify details of instructional manuals or guides (e.g. business brochures/advertising, menus, work manuals).

Specific Essentials (Grade 8) Reading Performance Level Descriptors

Students at the "Meets the Standard" level know and are able to do the preceding and following:

Use structural analysis skills to decode unfamiliar words

- Demonstrate an understanding of the use of figurative, idiomatic, and technical language

Apply comprehension strategies

- Draw conclusion from stated details
- Identify cause and effect relationships
- Support conclusions with evidence from text

Analyze literary elements

- Interpret events and/or character motivations
- Apply prior knowledge in interpreting an idea
- Draw conclusions based on stated information
- Identify critical details

Identify the author's persuasive strategies

- Identify author bias
- Use details to support/explain the author's purpose or bias
- Use persuasive strategies to interpret purpose or bias statements

Evaluate an instructional manual

- Identify critical details in instructional guides

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) READING - ENGLISH**

EXCEEDS THE STANDARD

General AIMS Performance Level Descriptors (K-12)

This level denotes demonstration of superior academic performance evidenced by achievement substantially beyond the goal for all students.

General Essentials (Grade 8) Reading Performance Level Descriptors

Students who “Exceed the Standard” are able to identify theme and infer conclusions from challenging texts. At this level, students are able to apply structural analysis skills to confirm meaning of complex language. Students are able to recognize literary elements such as theme, plot sequence, and word relationships. Students can analyze details from information sources and recognize when information is either extraneous or missing. Finally, students are able to interpret or explain an author’s use of persuasive strategies.

Specific Essentials (Grade 8) Reading Performance Level Descriptors

Students at the “Exceeds the Standard” level know and are able to do the preceding and the following:

Use structural analysis skills to decode unfamiliar words

- Apply structural analysis skills to confirm meaning of figurative, idiomatic, and technical language

Apply comprehension strategies

- Infer conclusions from challenging texts
- Make clear distinctions using comparisons
- Distinguish fact from opinion

Analyze literary elements

- Identify theme in a challenging text
- Recognize the relationship between two or more terms
- Analyze elements of plot
- Interpret events and character motivations
- Explain interaction of characters

Identify the author’s persuasive techniques

- Interpret and explain an author’s use of persuasive strategies supported by evidence from text

Evaluate an instructional manual

- Analyze details from informational sources
- Recognize when information is either extraneous or missing

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) WRITING - ENGLISH**

APPROACHES THE STANDARD

General AIMS Performance Level Descriptors (K-12)

This level denotes partial understanding of the knowledge and application of the skills that are fundamental for proficient work. Students who approach the standard demonstrate competency in the prerequisites necessary to begin working on the challenging content required of the student who "Meets the Standard", but do not demonstrate full understanding of that challenging content.

General Essentials (Grade 8) Writing Performance Level Descriptors

Students who are "Approaching the Standard" in writing demonstrate the ability to identify some of the basic elements of written communication. They show some control in capitalization, spelling and punctuation. These students develop their ideas with some supporting details and use a basic organizational structure. They use predictable vocabulary and their writing reveals an occasional sense of audience awareness. They have good control of simple sentences and attempt more complex sentence structures.

Specific Essentials (Grade 8) Writing Performance Level Descriptors

Students at the "Approaches the Standard" level know and are able to do the following:

Effectively use written language for a variety of purposes and for a variety of audiences

- Use overly broad or simplistic ideas with limited supporting details
- Use a simple organizational structure
- Use a tone that may not be appropriate for the audience and purpose; limited commitment to the topic
- Use ordinary, generic language with some misuse of word choice
- Demonstrate good control of simple sentences; limited control and effective use of complex sentences
- Edit partially; demonstrate limited control of standard writing conventions (spelling, punctuation, capitalization, usage)

Use correct spelling, punctuation, capitalization, grammar and usage

- Combine two simple sentences into a compound sentence including an adjective clause

Write a summary that presents information clearly and accurately

- Summarize a paragraph or brief passage using minimal details
- Identify irrelevant details in a passage
- Organize information in sequence using context clues and transitions

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) WRITING - ENGLISH**

APPROACHES THE STANDARD

Write a report that conveys point of view and develops a topic

- Identify categories in an outline for a report
- Write an appropriate concluding statement

Write formal communications

- Identify appropriate word choice for a formal communication
- Write the body of a letter using sufficient details

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) WRITING - ENGLISH**

MEETS THE STANDARDS

General AIMS Performance Level Descriptors (K-12)

This level denotes demonstration of solid academic performance on challenging subject matter reflected by the content standards. This includes subject-matter knowledge, application of such knowledge to real world situations, and content-relevant analytical skills. Students who perform at this level are well prepared to begin work on even more challenging material that is required for the next performance level. Attainment of at least this level is the goal for all students at the Essentials (Grade 8) level

General Essentials (Grade 8) Writing Performance Level Descriptors

Students who "Meet the Standard" demonstrate the ability to apply skills for effective written communication. They are able to edit and combine sentences for clarity. These students are able to summarize short passages effectively by selecting appropriate details and are able to organize sequentially. They are familiar with reference materials and resources. In their own composition, they can produce writing for a variety of purposes.

Specific Essentials (Grade 8) Writing Performance Level Descriptors

Students at the "Meets the Standard" level know and are able to do the preceding and following:

Effectively use written language for a variety of purposes and for a variety of audiences

- State ideas that are clear and focused with general supporting details
- Organize ideas with a developed beginning, middle and ending though transitions may seem predictable
- Use a tone appropriate to the audience and purpose; demonstrate commitment to the topic
- Use words that effectively convey the intended message though lack variety
- Demonstrate strong control over simple sentence structure with additional attempts at varied sentence structure
- Edit adequately; demonstrate control over standard writing conventions where minor lapses do not impede readability

Use correct spelling, punctuation, capitalization, grammar and usage

- Identify and use correct verb tense within a paragraph
- Combine two simple sentences into a complex coherent sentence incorporating a prepositional phrase
- Use correct verb number and tense in a complex sentence

Write a personal experience narrative or creative story

- Identify a story line within a personal narrative in a sequence that is clear

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) WRITING - ENGLISH**

MEETS THE STANDARDS

Write a summary that presents information clearly and accurately

- Summarize a paragraph or brief passage using sufficient sequential details

Write an expository essay

- Identify appropriate supporting details for a given topic sentence

Write a report that conveys point of view and develops the topic

- Organize topics, subtopics and supporting details

Write formal communications

- Organize ideas effectively in a formal communication

Demonstrate research skills using reference materials

- Identify the parts of a textbook and the purpose of each
- Categorize information for outline placement

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

PERFORMANCE LEVEL DESCRIPTORS ESSENTIALS (GRADE 8) WRITING - ENGLISH

EXCEEDS THE STANDARDS

General AIMS Performance Level Descriptors (K-12)

This level denotes demonstration of superior academic performance evidenced by achievement substantially beyond the goal for all students.

General Essentials (Grade 8) Writing Performance Level Descriptors

Students who "Exceed the Standard" demonstrate the ability to analyze and evaluate written language for its effect. They are able to make exceptionally strong use of language conventions, such as grammar, spelling, and usage. Students apply strategies to clarify meaning and construct writing that enhances the main idea with effective use of transitions from one idea to the next. They evaluate and apply techniques of writing for their effectiveness to audience and purpose, such as expository writing, the use of narrative elements, or the organization of research. Students consistently demonstrate strong control in applying writing strategies and techniques to their own writing.

Specific Essentials (Grade 8) Writing Performance Level Descriptors

Students at the "Exceeds the Standard" level know and are able to do the preceding and the following:

Effectively use written language for a variety of purposes and for a variety of audiences

- State ideas that are clear and interesting with a focused main idea and details that show credible support
- Organize writing to enhance the main idea effectively moving the reader from one idea to the next
- Demonstrate a committed voice with strong sense of audience
- Use a wide range of words that energize the writing and are suitable to audience and purpose
- Use carefully crafted sentences with strong and varied structure that makes expressive oral reading easy and enjoyable
- Edit carefully; demonstrate strong, sophisticated control over a broad range of writing conventions

Use correct spelling, punctuation, capitalization, grammar and usage

- Combine two simple sentences into a complex coherent sentence
- Use correct verb agreement and tense in a complex sentence

Write a personal experience narrative or creative story

Within a personal narrative/creative story:

- Use original figurative language
- Select specific words to describe/develop characterization
- Analyze writer's technique in a narrative

ARIZONA ACADEMIC STANDARDS & ACCOUNTABILITY

**PERFORMANCE LEVEL DESCRIPTORS
ESSENTIALS (GRADE 8) WRITING - ENGLISH**

EXCEEDS THE STANDARDS

Write a summary that presents information clearly and accurately

- Summarize illustrations and text into clear directions
- Use own words to summarize and include the most significant text-based details

Write an expository essay

- Recognize a thesis statement
- Choose the appropriate supporting details to support a thesis statement
- Maintain logical order

Write a report that conveys point of view and develops the topic

- Select appropriate, relevant and specific evidence to support a point of view
- Write an effective conclusion

Demonstrate research skills using reference materials

- Use periodic index to cross-reference
- Make inferences to locate information using a table of contents
- Identify an appropriately narrowed topic.